

On twigs, Aloen-Aloen; No. 25.

Without apothecia. A tropical species of which very little is known.

The var. *aurigera* of *S. Mougeotiana* also credited to Java by Nylander.

STICTA (STICTINA) CROCATATA (L.) Ach. Prod. p. 158.

On rocks. Aloen-Aloen; alt. 2900 m. No. II.

Without apothecia.

STICTA DAMAECORNIS (Sw.) Ach. Method, p. 276.

On trunks, West Java; alt. 1500 m. No. 30.

Without apothecia.

ROCKLAND, MAINE.

### SHORTER NOTES

A TETRACARPELLARY WALNUT. The curiously malformed walnut shown in the accompanying sketches was found in a lot of walnuts purchased in Pittsburgh, about the time of the publication of Wm. H. Lamb's note on "A Tricarpellary Walnut"

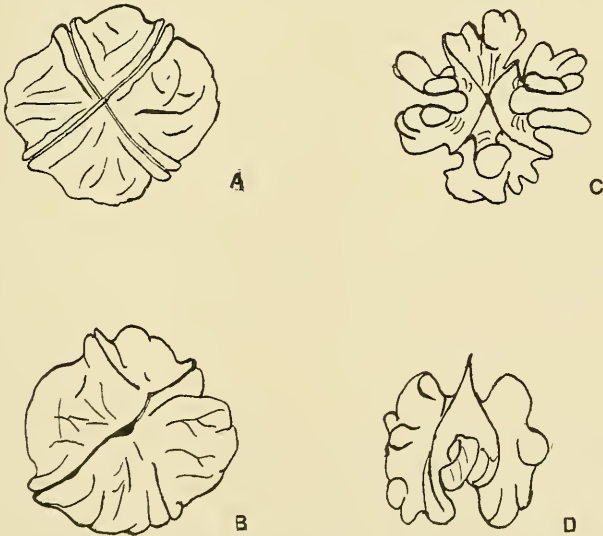


FIG. 1. A tetracarpellary walnut. A, Front or pointed end. B, Back or rounded end. C, Front view of kernel. D, Top view of kernel.

(TORREYA 12: 290-291. 1912). The writer's attention was called to the latter paper by Dr. O. E. Jennings, of the Carnegie Museum, when the specimen was shown to him. The specimen differs from that described by Lamb in that the shell is divided into four, instead of three parts. In the sketch, *A* is a view of the shell from the front or pointed end, and *B* the back or rounded end. It will be noticed that the division of the shell is not symmetrical, no two portions being quite the same size, and also that the minor or secondary fissure (the one extending upwards from left to right in *A*) is not complete at the back of the shell. *C* is a view of the kernel, in the same position as the shell in *A*, and *D* is a top view of *C*. The malformation appears to have affected the appearance of the shell more fundamentally than that of the kernel. The specimen is now in the possession of Dr. Jennings at the Carnegie Museum, Pittsburgh.

Since the above paragraph was written, a number of abnormal walnuts have come into the possession of the writer. Of these, three showed division of the shell into four parts, as seen from the point end, while seven showed division into three parts at this end. Of these seven, however, three showed division into four parts, almost symmetrically, at the rounded end, and there seemed to be a tendency for the nuts to be unsymmetrically tricarpeal,—that is, the shell is divided into two equal halves by a continuous fissure, and then one of these halves again divided by a fissure at right angles to the first. Of these ten abnormal walnuts, two were found in the open stock of a local grocery store, one of these two being tricarpeal, and the other tetracarpeal. The remaining eight came from a grove in Santa Ana, California, and represented apparently somewhat less than one per cent. of this particular lot of nuts from this grove. One of these eight was unsymmetrically tetracarpeal, while the rest were either symmetrically or unsymmetrically tricarpeal. In addition to the above, several walnuts were found in which the normal grooving of the shell was deepened in certain directions as seen from the rounded end, most of them showing a tendency to divide into four approximately equal parts. One specimen showed an unsymmetrical division of the shell into

two portions, by two half fissures at an angle to each other, one part of the shell representing about one-third of the whole, and the other the remaining two-thirds, as though the tricarpeillary development had not been completed.

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## REVIEWS

### Coker's *Plant Life of Hartsville, South Carolina*\*

Although South Carolina was the home of some of the most noted southern botanists of the ante-bellum period, and the scene of much good work by transient collectors as well as by residents in the early days of American botany, when plants were always studied singly, without reference to their associations and environment, it has been sadly neglected by students of the modern science of plant sociology; and fewer descriptions of vegetation have been published for that state than for almost any other in the South. The only paper on South Carolina vegetation at all comparable with the one before us is one by the same author on the Isle of Palms (Charleston County), published about seven years earlier.†

The present paper is a rather detailed study of the vegetation of the immediate vicinity of the town where the author was born and where he has spent many of his vacations since becoming a professor of botany in another state. The area covered does not seem to have any definite boundaries, natural or otherwise. The following condensed outline of the work (which has no table of contents) will indicate its scope about as well as several sentences would.

Introduction (history of exploration) 3-4

Climate 4-7

Topography and geology 7-8

\* The plant life of Hartsville, S. C. By W. C. Coker, Ph.D., Professor of Botany, University of North Carolina. 129 pp., 15 plates.  $6\frac{1}{2} \times 10\frac{3}{8}$  in. Printed at Columbia, S. C., for the Pee Dee Historical Association, [December] 1912.—Pages 3-38, with the plates, originally published in *Jour. Elisha Mitchell Sci. Soc.* 27: 169-205, *pl. 1-15*. 1912. (Misprinted "Vol. XXVIII, December, 1911.")

† *TORREYA* 5: 135-145, *f. 1-4*. Aug. 1905.